APPENDIX XIX.

TO THE

SECOND EDITION

OF THE

DESCRIPTIVE CATALOGUE

OF THE

PATHOLOGICAL SPECIMENS

CONTAINED IN

THE MUSEUM

OF

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

BY

SAMUEL G. SHATTOCK,

PATHOLOGICAL CURATOR OF THE MUSEUM.

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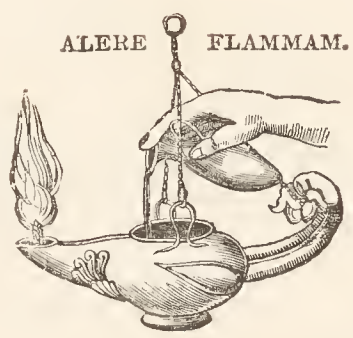

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PREFACE.

This Appendix contains descriptions of the Pathological Specimens added to the Museum during the year ending July 1st, 1905.

SAMUEL G. SHATTOCK.

July 1905.

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APPENDIX XIX.

TO THE

PATHOLOGICAL CATALOGUE.

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25 D. The head and neck of a white Leghorn fowl upon which, when the comb and wattles were well developed, double castration was carried out. The testicles, which were found of full size, were removed in Nov. 1903 by Professor A. Watson of Adelaide. The bird was killed in Oct. 1904, or a year after the operation.

The comb and wattles were observed by Professor Watson to slowly diminish in size after the castration.

The bird occasionally crowed, but rather feebly.

The neck- and saddle-hackles are well developed. The spurs at the time of death were somewhat small and sharp. The tail presented two sickle feathers longer, more slender, and less curved than in the normal male, and like such as are found in birds caponised in the young state.

No testicular remnants were discovered in the abdomen after death.

(S. G. Shattock and C. G. Seligmann. Trans. Path. Soc. vol. lvii.)

Presented by Professor A. Watson, 1905.

268 B. A small epithelial cyst about three-sixteenths of an inch in diameter which was removed from the finger, and arose, apparently, from the implantation of epidermis into the deeper part of the corium.

From a woman who had cut her finger six months previously. On the inner side of the distal phalanx of the right middle

finger there was a hard round swelling about a third of an inch in diameter, fixed to the skin, but slightly moveable on the parts beneath. The cyst though easily separated from the deeper parts was adherent to the scar of the injury above referred to.

Presented by St. Thomas's Hospital, 1905.

456 D. Half of a melanotic sarcoma an inch and three quarters in chief diameter, which was excised from the femoral region in the situation of the lymphatic glands, and which microscopic examination shows to be of the spindle-celled variety. A small pigmented patch on the heel was the only lesion discovered which was suggestive of a primary neoplasm. Histologically this patch (which was removed at the operation) shows a few multiform, widely separated pigmented cells in certain of the papillæ, and similar cells in the corium beneath, associated with polymorphonuclear leucocytic infiltration.

From a man æt. 59, admitted into the Great Northern Central Hospital under the care of Mr. E. C. Stabb, March 1903.

The patient had noticed a lump the size of a pea in the left groin nine months before admission. This slowly increased until two months ago, when it commenced to grow very rapidly, but without pain, and without causing loss of health. The tumour lay over and below the left saphenous opening, was connected with the skin, but freely moveable on the deep structures. There was a smaller mass the size of a walnut just below the middle of Poupart's ligament.

On the plantar aspect of the heel a bluish area attracted notice, and on scraping off the thickened epidermis, a more distinctly pigmented patch was exposed.

The patient could not remember ever to have injured the heel by the puncture of a nail in the boot, or otherwise.

Presented by E. C. Stabb, Esq., 1905.

1598 A. The terminal phalanx of a second toe, from the dorsum of which there has grown a small cancellous osteoma, the nail being displaced slightly upwards and backwards.

From a man æt. 24. In April 1902, whilst serving in South Africa, his horse trod on his right foot, the second toe being especially injured. During the month following he observed that a lump was forming. He returned to England in August, and in October the terminal phalanx was removed by the donor.

Presented by E. R. Dawson, Esq., 1905.

1637 C. A vertical section of the upper end of the humerus of a child. The shaft for a distance of about three inches is expanded into a thin-walled cavity, the highest, broadest part of which has a diameter of one and a quarter inches and accurately corresponds with the epiphysial line except at the inner aspect, where a small wedge-shaped area of the normal cancellous bone of the upper end of the diaphysis remains. The interior of the cavity is quite smooth, though here and there the osseous shell bounding it is thinner than elsewhere and translucent. To certain of the low ridges or trabeculæ between the thinner spots membraniform processes of soft tissue are in a few spots attached. The cavity in the recent state contained a clear dark straw-coloured fluid, in which nothing suggestive of hydatids was found.

Microscopic examination of one of the chief membraniform septa shows it to consist of spindle-celled connective tissue in which considerable numbers of multinucleated giant cells occur. The giant cells are fairly uniformly distributed through the other tissue and have no relation with extravasated blood or necrotic tissue, neither of which are present in the sections.

The central cavity is probably, therefore, due to the softening and removal of a giant-celled sarcoma.

The part was removed by amputation from a boy æt. 7 years, who fell whilst running on level ground and complained of having hurt his left shoulder; examination showed nothing abnormal. During the following seven months he was never able to use the arm quite freely, and complained of its hurting him if suddenly jerked. In January 1905 the patient had a second fall, and complained that he had hurt the arm in the same place. The donor then found an enlargement of the upper third of the humerus, with some tenderness on firm pressure; there was no œdema or redness. A skiagram confirmed the diagnosis of tumour. The limb was removed by Mr. Watson Cheyne through the neck of the scapula. Recovery was uneventful.

[Mounted in 50 per cent. glycerine.]

Presented by Dr. T. J. Walker, 1905.

1663 B. The posterior portion of the base of a skull to the left of the middle line, with a small portion of the right occipital

squama; a segment of the foramen magnum may be recognized on the left-hand side of the lower margin of the bone.

In connection with the occipital, the left temporal, and left parietal bones, there has grown an immense, somewhat hemispherical osteoid tumour. The growth has a wide base of attachment, which to a certain extent it overlaps. For the most part in the section, the bones of the skull from which the tumour arises have been invaded and replaced by the new growth; the projection within the cranial cavity is small and of no wide extent.

The divided surface of the tumour is throughout exceedingly dense. Towards the exterior it displays a radiating construction and consists of large osseous trabeculæ in various phases of coalescence.

J. G., a miner, between thirty and forty years of age, was admitted into the Leeds General Infirmary, April 1902. Eleven years previously he had fallen backwards on to his head. The fall raised a small bruise which did not subside, and some weeks later he noticed that the swelling was enlarging. A steady enlargement continued until two years ago, since when it has been more rapid. During the last few weeks the patient had to spend most of his time lying down on account of the fatigue occasioned by supporting the great weight of the tumour; and during this period he suffered from frequent headaches and occasional diplopia. The surface of the tumour was almost smooth, with broad flat bosses or undulations; there was no pulsation in it, but it was covered with enormous veins or venous sinuses, and similar veins were to be seen on the posterior pharyngeal wall.

There was no optic neuritis; the action of the ocular muscles was unimpaired.

As the patient was greatly alarmed by the rapid increase in the size of the tumour, the external carotid artery of the left side was ligatured on April 18th, 1904. The vessel was found to be much enlarged and all the veins seen were enormous. April 23rd; wound healed; the sutures were removed.

April 27th; sudden urgent dyspnœa, for which tracheotomy was performed; this gave marked temporary relief.

April 28th; delirium, great restlessness; breathing stertorous.

April 29th; death. At the autopsy the dura mater was found adherent to the growth; no special cause was discovered for the dyspnœa, the delirium, or the sudden death. No metastatic growths were found.

Presented by E. Ward, Esq., 1905.

1785 D. A vertical section of the upper end of a left femur excised for coxa vara.

Presented by Robert Jones, Esq., 1905.

1785 E. A thin slice of the preceding showing more clearly the disposition of the osseous tissue.

The head of the bone has undergone a marked degree of displacement downwards, the highest point of its articular surface lying an inch and a half below the summit of the great trochanter, in the strictly vertical position of the shaft : the articular cartilage is almost confined to its superior aspect.

On the lower side the circumferential portion of the displaced head (which is also much distorted) is separated by a narrow interval only from the inner surface of the shaft, in which interval the lower portion of the articular capsule presumably lay.

A close inspection of the divided surface reveals the following. Along the lower half of the line of junction the compact substance of the neck abuts directly upon the cancellous tissue of the head, though the two are continuous by osseous tissue ; above this the uniformly cancellous tissue of the head is separated by a thin, irregular line of fibrous tissue from the bone on its outer side ; black bristles have been run through to mark the tissue in question. On the outer side of this line the osseous substance has a different texture, and takes the form of a bony process about ·5 cm. in thickness which on its outer border abuts against, though continuous with, portion of the neck of the bone, whilst its highest part forms the inner boundary of a space occupied by fibrous tissue, but above which the bone is continuous with that which represents the highest point of the cervix. The appearances, therefore, indicate that a solution of continuity has taken place between the neck and the head close behind the latter, that osseous union has followed between the apposed lower portion of the neck and the head, and that a formation of callus has occurred upon the upper exposed

surface of the neck and occupies the interval between this and the higher part of the head.

The island of fibrous tissue above referred to was not on either half of the bone continued to the surface. The osseous tissue is everywhere of normal hardness, although in the head the trabeculæ are in places abnormally slender.

The portion of femur preserved was excised from a woman (Margaret S.) æt. 26, in whom the hip-joint was very painful and rigid. The patient was a strong-looking woman, who walked with some "wobbling." Her spine and pelvis exhibited marked lordosis. She began to walk at the age of two years, and even then a "wobbling" gait was noticed. When eleven years old she was thought to have hip-disease, and for eleven months she wore a Thomas's hip-splint on the left limb. She still complained of pain, which was getting worse. Both her hips were prominent, especially the left. The right trochanter was two inches above Nélaton's line; the left, two and a half. The length of the limbs as measured from the umbilicus was equal. The measurement from the anterior superior iliac spine to the heel showed the right limb to be half an inch longer than the left. Neither limb could be flexed on the abdomen beyond a right angle. Abduction was very limited; the tip of the internal condyle could be abducted from the middle line only two and a half inches; the left, two inches.

Adduction was more free. The limbs could be adducted so that the under surface of either knee could be made to rest on the opposite patella. This was the position most comfortable to the patient.

A skiagram of the pelvis, taken in March 1902, is preserved in the Collection of Drawings. The operation of excision was carried out in February 1903.

(An Atlas of Illustrations: Fasciculus xvi. pl. i. The New Sydenham Society, 1903.)

Presented by Robert Jones, Esq., 1905.

2270 C. Two tumours of thyroid tissue, each about an inch in chief diameter. The upper lies embedded in the posterior part of the tongue, the smooth mucosa of which may be seen covering the growth, at the back of the preparation.

The lower tumour lay below the hyoid bone, and at the operation was found to be connected with the upper by a band which ran behind the body of the bone named, and represented probably a portion of the thyro-lingual duct intervening between the two growths. This connecting

isthmus was torn across in the removal of the tumours, which have obviously developed in connection with the duct in question. The body of the hyoid bone lay in the interval between them.

The lower growth has a smooth lobulated surface, and is distinctly defined within a fibrous capsule; in its macroscopic structure it differs from normal thyroid tissue only in the cystic distension of some of its vesicles: microscopic examination confirms the thyroidal character of the new formation. The superior tumour more closely resembles the normal thyroid; it is less sharply defined than the lower, and where connected with the lingual substance in front, it is in places devoid of any proper capsule.

The parts were removed from a lady about thirty-two years of age who had observed a swelling in the neck for about a year, which had gradually increased. The duration of the tumour in the tongue was indeterminable; the growth itself projected in the middle line of the dorsum, involving the site of the foramen cæcum, and occupied an area about three quarters of an inch square; it was covered with smooth mucous membrane. Symptoms of myxœdema ensued after the operation; these were successfully treated by means of thyroid extract; the proper thyroid gland was then found to be small.

Presented by H. T. Butlin, Esq., 1905.

2273 M. A vertical section of the larynx with the hyoid bone, etc., of a man in whom the tongue disappeared during the course of a carcinomatous growth.

The parts were removed after death close up to the lower jaw, the whole of what remains of the tongue and growth by which it was destroyed being an ulcerated zone of tissue in front of the epiglottis, less than a quarter of an inch in thickness and extending forwards to the hyoid bone, the body of which has been invaded and partially destroyed by the neoplasm.

Histological examination shows the growth to be a squamous-celled carcinoma of narrow cell-columns and an unusually large proportion of fibrous stroma; cell-nests of small size occur in the epithelium, but no necrosis or phagocytosis is in progress.

I. S., a thin man, æt. 72, was admitted into the Westminster

Hospital under the care of Mr. W. G. Spencer, Nov. 1901 complaining of increasing difficulty in swallowing and speaking, and of fixation of the tongue, which he had noticed for three months. The tongue was found to be enlarged, indurated, and fixed to the jaw, but there was no ulceration or change in the epithelial surface of the tongue or mouth.

The submaxillary and submental glands formed an indurated mass continuous with the jaw and tongue. Much pain and salivation were complained of, at times. Evidence of syphilis was wanting. Iodide of potassium and mercury for three months with opium to relieve pain were ordered; the case was considered an inoperable one.

In January 1902 the patient was shown at the Medical Society. The tongue had then become depressed to the floor of the mouth, and felt like a board: the submaxillary glands had increased. During 1902 the deep cervical glands of both sides enlarged as far as the clavicle, and at one time threatened to break down: the glands, however, slowly shrunk.

In Nov. 1902, the tongue had receded below the level of the original floor of the mouth, and was very hard, but without any sign of ulceration: it was continuous with the submaxillary mass on each side below the level of the thyroid cartilage; at this date no enlarged glands could be felt.

In Nov. 1903 the patient was shown at the Medical Society for the third time. During the year, he had suffered from recurrent attacks of herpes on what remained of the tongue: there was now a deep cavity in the position of the tongue and floor of the mouth; and just in front of the epiglottis a nodular mass the size of the end of the thumb. The jaw and hyoid bone were fused together by a dense induration which did not extend into the neck.

The patient remained in the Westminster Hospital until December 1903, up to which time no ulceration or breaking-down took place, nor had any surface lesion been observed before the recurrent herpes. Death took place about a month later; during this time rapid downward extension of the cavity occurred in front of the epiglottis, hyoid bone, and thyroid cartilage: into this food tended to collect, but no special symptoms preceded death. Permission was obtained to examine the mouth only.

(W. G. Spencer. Trans. of the Medical Soc. vol. xxviii., 1906.)

[Mounted in 50 per cent. glycerine.]

Presented by the Westminster Hospital, 1905.

2402 F. A stomach showing an hour-glass contraction, due to the healing of a gastric ulcer. Both pouches are somewhat dilated. Immediately beyond the pylorus is a shallow semicircular ulcer, almost surrounding the duodenum, the base of which is formed by the bowel only.

From a young woman who was operated upon for perforated gastric ulcer at the cardiac end of the stomach. Owing to the extent of the perforation and the friability of the surrounding tissues the ulcer could not be completely closed. Death occurred on the day following the operation.

Cultures made from the purulent exudation at the time of the operation showed streptococci only.

Jacksonian Essay, 1904, *H. J. Paterson, Esq.*
1905.

2427 H. The pyloric portion of a stomach excised for carcinomatous disease.

From a married woman, æt. 34, who had not been seriously ill until October 1903, although in the latter part of September there was a history of an attack of acute pain accompanied with vomiting of "black material."

When seen Oct. 16th, 1903, there was some epigastric tenderness, and a "lump" to be felt in the epigastrium, which was thought to be fæces in the colon. The rectum was packed with hardened fæcal material which was removed. Slight relapses of pain and sickness occurred, with constipation. Dec. 25th, 1903, after taking food, the patient was seized with violent abdominal pain, increasing in severity, but unaccompanied with vomiting. Dec. 27th. the abdomen was opened by Mr. C. A. Ballance; acute recent peritonitis was found, mostly in the right hypochondrium. The pylorus was indurated, but no perforation was discovered. Recovery was uninterrupted.

Three months later, as the pain and sickness recurred, gastro-enterostomy was performed. Three weeks later, recovery having been uninterrupted, the pylorus was excised; the gastro-enterostomy was found perfect.

The final result was successful.

[Mounted in 50 per cent. glycerine.]

Presented by Dr. C. D. Green, 1905.

2427 I. A vertical section of the pyloric portion of a stomach which was excised for the malignant growth shown. The growth is mainly in the mucous and submucous tissues, but invades, also, the muscular wall; on the proximal side it is deeply ulcerated. The stricture was so close as to render the pylorus impermeable to water. The muscular coat of the stomach is much hypertrophied. Histologically the neoplasm is a spheroidal-celled carcinoma.

Presented by C. A. Ballance, Esq., 1905.

2427 J. The pyloric portion of a stomach which was excised during life. The pyloric canal is strictured by the new growth, which has extended into the adjoining part of the duodenum. At the operation the duodenum was divided three quarters of an inch beyond the limit of the induration, but as examination showed that the section was not clear of the growth, another inch of the duodenum was removed.

From a woman, æt. 61, suffering from dilatation of the stomach, vomiting, and constipation. Free hydrochloric acid was present in the gastric contents, but in diminished amount.

On exploratory operation, as the enlargement was thought to be possibly inflammatory, gastro-jejunostomy was performed, and a piece of the pyloric swelling removed. Microscopic examination showed the lesion to be carcinomatous, and of the spheroidal-celled type.

Three weeks afterwards, Feb. 24, 1902, the parts shown in the specimen were removed.

Death occurred four days later, vomiting becoming at last almost incessant; the condition precluded any further operation, although the symptoms were diagnosed as due to obstruction on the distal side of the gastro-jejunostomy, possibly from kinking of the jejunum. The parts removed after death are shown in the next preparation.

Jacksonian Essay, 1904. *H. J. Paterson, Esq.* 1905.

2427 K. The cardiac half of a greatly dilated stomach, from which the pyloric portion shown in the preceding specimen was excised.

Between the jejunum and the stomach, near the lower border of the latter and towards the pyloric end, an anastomosis has been established. As viewed from the interior of the stomach, the anastomotic opening is patent, but immediately beyond the opening (as appears at the back of the specimen) there is a marked constriction of the duodenum on the distal or efferent side. The pyloric end of the stomach has been completely closed by suture.

At the autopsy it was found, on distending the stomach with water, that fluid passed freely into the afferent, but none into the efferent limb of the jejunum.

Jacksonian Essay, 1904. *H. J. Paterson, Esq.* 1905.

2427 L. A stomach showing, on the anterior aspect towards the pyloric end of the greater curvature, the anastomotic opening resulting from gastro-enterostomy performed by means of two continuous sutures, and accompanied with excision of a portion of mucous membrane, ten weeks before death. The pylorus and pyloric end of the stomach are extensively infiltrated with carcinoma which has undergone colloid degeneration. There is extensive involvement of the glands above the lesser curvature and around the head of the pancreas. Windows have been cut in the stomach and jejunum to display the artificial aperture of communication, which is about an inch in diameter. Microscopic examination showed a complete continuity of the gastric mucosa with that of the jejunum.

From a woman, æt. 25, upon whom gastro-enterostomy was performed as a palliative measure ten weeks before death. Vomiting was entirely relieved by the operation. As the disease was malignant, the anastomotic opening was made only two inches long instead of two and a quarter.

The specimen is No. 1 in the Essay below referred to.

Jacksonian Essay, 1904. *H. J. Paterson, Esq.* 1905.

2427 M. A stomach opened from behind, exhibiting a marked hour-glass constriction ; the pyloric pouch is rather larger than the cardiac. The lesser curvature is drawn downwards to the greater, and it is noteworthy that externally there is little indication of the extent of the internal constriction.

The jejunum has been united to the stomach at its pyloric end (anterior gastro-jejunostomy). Union has already taken place (eighteen hours after the operation) and the serous sutures are covered with plastic lymph.

At the back of the preparation, on the anterior wall of the stomach and to the cardiac side of the hour-glass constriction, there is a depressed area from which the ends of several sutures project, and which marks the spot from which a perforating ulcer was excised.

From a woman, æt. 32, who was operated upon for gastric ulcer sixteen hours after perforation. At the operation the ulcer was thought to be situated at the extreme cardiac end of the constriction.

Death occurred from acute suppurative peritonitis, the fluid in the abdominal cavity at the time of operation giving pure cultures of streptococci.

The case is that numbered 20 in the Essay referred to below.

Jacksonian Essay, 1904. *H. J. Paterson, Esq.* 1905.

2427 N. Portion of the posterior wall of a stomach showing the opening, about three-quarters of an inch in diameter, of a posterior gastro-enterostomy.

The thickening of the pyloric canal was thought at the operation to be carcinomatous, but microscopic examination after death showed it to be inflammatory only.

Death occurred from septic pneumonia three days after the operation.

Jacksonian Essay, 1904. *H. J. Paterson, Esq.* 1905.

2427 O. A stomach laid open from the front, showing the opening of a posterior gastro-enterostomy performed by means of a single row of serous sutures fourteen days before death.

The artificial aperture appears as a slit measuring about half an inch in length by a quarter of an inch in breadth, and situated nearly midway between the lesser and greater curvatures. Although the opening is apparently patent, when the stomach was distended with water none passed through the opening into the jejunum ; on the other hand, water was easily injected from the jejunum into the stomach. The mucous membrane evidently acted as a valve. No mucosa was excised at the time of operation and no mucous suture was used.

The pylorus is much stenosed ; immediately beyond the constriction there is a deep annular ulcer, eroding the whole thickness of the wall of the bowel, and exposing the hepatic artery from which fatal hæmorrhage ensued. Microscopic examination of the ulcer revealed no evidence of malignant growth.

From a man æt. 64, who had suffered from pain after food and marked gastric dilatation for some years. Posterior gastro-enterostomy was performed and the patient went on well until

the 10th day. On the 11th day his temperature rose to 101° F., he began to vomit, and had considerable pain in the pyloric region. On the next day the vomit contained a little blood. The vomiting persistently increased, the blood in it continuing to be bright, and on the 14th day death took place from profuse hæmorrhage.

Jacksonian Essay, 1904. *H. J. Paterson, Esq.* 1905.

2519 A. Portion of the small intestine of a child in which there is a widely open perforation, due to typhoid ulceration: the mucosa at the margin of the aperture is everted.

The parts were taken, after death, from a male child two years of age, who was seized at the end of the fourth week with abdominal pain, rise of temperature, constipation: there were no acute peritoneal symptoms, and no collapse. Gradual distension of the abdomen took place, with occasional vomiting and increasing constipation; there was little or no fever.

The abdomen was opened three weeks later (Jan. 4th, 1904). The abdominal wall was found infiltrated with grey necrotic-looking material, and a cavity filled with somewhat offensive pultaceous material was entered: at the bottom of the space a depression could be felt in the middle of a yielding elastic wall; the intestines were adherent everywhere around; a drainage-tube was put in.

On the following day the abdominal distension had disappeared, and the intestinal contents were discharged through the wound. The child survived eighteen days. At the autopsy the abdominal cavity was found to be totally obliterated; the perforation in the small intestine shown in the specimen was fifty-two inches above the ileo-cæcal valve.

Enteric lesions were found in the bowel. The extensive cavity opened at the operation was bounded by adherent intestine except in front, where it was formed by the abdominal wall; it had contracted to the size of a Tangerine orange, and into it the gut freely opened: the intestine beyond the perforation was quite empty and contracted.

Presented by Dr. C. D. Green, 1905.

2529 D. Portion of an ileum which was excised for a close annular stricture due to the growth of a carcinoma.

From a lady æt. 60, upon whom appendicectomy was performed in July 1904: the appendix contained a large concretion.

The patient made a good recovery, but soon afterwards began to suffer from attacks of abdominal pain accompanied with nausea, but no vomiting. On Oct. 28th, 1904, she vomited two pints of dark fluid of a fæcal odour. On the following day laparotomy

was carried out. The cæcum was found distended, the distension being attributable mainly to strong adhesions surrounding the hepatic flexure; these were divided.

Examination of the ileum led to the discovery of a tight stricture six inches from the ileo-colic valve. A portion of the mesentery containing enlarged glands was excised with the piece of intestine shown in the preparation. The liver appeared to be unaffected.

Presented by A. W. Mayo Robson, Esq., 1905.

2555 D. A spirally-twisted vermiform appendix, removed by operation, and slit up so as to expose the mucosa. It was, in the recent state, full of fæcal material which was tightly packed in the free end for a distance of one and a half inches. *Presented by E. M. Corner, Esq.*, 1905.

2559 C. A small oval concretion from the vermiform appendix. Two or three hairs, one of them about two and a half inches in length, are shown connected with it.

From a girl three and a half years of age, admitted to St. Thomas's Hospital, April 1904, with acute generalized suppurative peritonitis. The appendix, which was found to be perforated, was removed with the contained stercolith preserved in the preparation: the peritoneum was washed out, but death ensued.

Presented by W. H. Battle, Esq., 1905.

2559 D. Half of an oval calculus half an inch in chief diameter which was removed, together with a second of about the same size, from the vermiform appendix. At either pole it is flattened or truncated and in those situations has a tuberculated exterior. The divided surface is irregularly and somewhat coarsely laminated.

Chemical examination of the second calculus by Mr. L. S. Dudgeon showed it to consist of calcium and magnesium combined as carbonate, phosphate, and oxalate.

The wall of the appendix was much thickened and indurated from chronic inflammation.

The patient was a policeman, and a hearty eater of meat and vegetables.

Presented by St. Thomas's Hospital, 1905.

2559 E. A vermiform appendix near the free end of which there is an oval concretion or stercolith about three quarters of an inch in chief diameter : the wall around is thickened and congested.

The appendix was removed by Mr. W. Battle, from a child æt. $3\frac{1}{2}$ years, in whom general peritonitis followed upon the localized necrosis still recognizable on the right hand side beyond the concretion.

Presented by St. Thomas's Hospital, 1905.

2705 A. A vertical section of the parts concerned in an intussusception of the vermiform appendix and cæcum into the colon. On the right-hand side of the lowest part of the preparation the vermiform appendix, which is completely inverted, may be recognized. The inversion of this structure was possibly the starting point of the more extensive invagination which involves the whole of the cæcum and the adjoining part of the colon, the line of reflection between the middle and outer tubes having lain near the upper part of the colon preserved.

A piece of blue glass has been placed in the inner or entering tube of small intestine ; no displacement of this through the ileo-cæcal valve has taken place. The situation of the valve itself may be recognized above the base of the inverted appendix, and is marked with a rod of white glass.

A few pedunculated adenomata project from the mucous membrane of the colon, the submucous tissue of which is markedly œdematous.

In addition to the œdema the section shows a certain thickening of the mucosa itself on the inverted appendix and much of the adjoining cæcum. There is no macroscopic invasion of the muscular wall, and histological sections of the apex of the appendix showed only a thickened condition of the mucosa without carcinomatous transformation.

The parts were removed from a female, about sixty years of age. Her health had been failing for two years, and she had never been well although living on a much restricted diet. The symptoms comprised increasingly frequent attacks of uncontrollable vomiting, colic, and the occasional appearance of a

swelling in the right side of the abdomen, which was said to reach at times the size of two fists.

The bowels were always loose, and continued to act during these attacks, which lasted for the space of a few days.

Towards the end of November 1904 an attack of bilious vomiting commenced; no food was retained; there was abdominal pain associated with absolute constipation. Several days after the onset, a swelling was found in the right hypochondrium, the swelling in two days extending across to the left hypochondrium; it was non-resonant and sausage-shaped. An enema given on Dec. 2nd was returned with much flatus, deeply blood-stained; the vomiting diminished, but a relapse followed the improvement, and the abdomen was opened on Dec. 4th.

In the position of the transverse colon, an intussusception $8 \times 3\frac{1}{2}$ inches was found, the sheath of which was normal in appearance. Reduction was not difficult, but a hole the size of a shilling was found in the sheath about two inches to the right of the apex of the intussusception and one inch to the left of the mid line. The cæcum was very œdematous, the ileum was not swollen: the appendix was found to be inverted and irreducible.

The parts were excised after a lateral ileo-colic anastomosis had been made, as carcinomatous disease was suspected.

Presented by Stanley Boyd, Esq.

2747 B. A small slice taken from a liver affected with biliary cirrhosis. The lobules, which are deeply bile-stained, are almost uniformly separated by an excessive formation of fibrous tissue: the surface of the portion of the organ shown is quite smooth.

From a woman, æt. 52, who had suffered from jaundice during the last seven years of her life. Considerable enlargement of the liver was diagnosed. An operation was performed in the Great Northern Hospital by Mr. Lockwood on March 7th, 1896, about a year from the commencement of the jaundice. The gall-bladder was not distended, but contained many calculi. Although a hardness at the head of the pancreas was felt and thought to be due to a calculus in the common bile-duct, for reasons connected with the state of the patient, only a cholecystostomy was carried out. The biliary fistula was allowed to close at the latter end of 1896, when the general condition was good. In 1901, the jaundice had reappeared, and the patient died Aug. 17th, 1902.

After death, the hepatic and the common bile-ducts were found much dilated, and freely moveable in the cavity formed by their dilated channels, there lay a biliary calculus, which had probably been in the duct since the commencement of the illness.

Microscopically the liver showed an irregular multilobular

cirrhosis, though the disposition of the fibrous tissue in places more approached that of a true unilobular form.

(F. Parkes Weber. Trans. Path. Soc. vol. liv. p. 105.)

Presented by Dr. F. Parkes Weber, 1905.

2755 B. A slice of the liver of a tuberculous cow. Lying partly in its substance, and partly projecting from its lower surface, are a series of large spheroidal masses averaging about an inch and a half in diameter.

In all, extensive caseation has occurred. Bacteriological examination proved the lesions to be tubercular.

Presented by the Middlesex Hospital, 1905.

2830 H. A gall-bladder of which the walls are greatly thickened, and the lining congested from inflammation. A calculus of considerable size lies in the fundus.

The gall-bladder was removed from a lady æt. 50, who had for eleven years suffered from biliary colic. Acute symptoms arose about a fortnight before the operation, at which time the patient was extremely ill, and presented a swelling reaching below the umbilicus. The gall-bladder was found filled with muco-pus and gall-stones. Recovery was complete.

Presented by A. W. Mayo Robson, Esq., 1905.

2830 I. Twenty-eight calculi averaging about three-eighths of an inch in diameter, which were removed by incision from the preceding gall-bladder before it was excised.

Presented by A. W. Mayo Robson, Esq., 1905.

2830 J. A gall-bladder of which the walls are much thickened from acute infective inflammation, the swelling reaching a maximum of three quarters of an inch. The mucosa is of a deep brownish-black colour ; the peritoneum is intensely and uniformly congested. The gall-bladder contained three large calculi. The deep colour of the mucosa is due chiefly to interstitial hæmorrhage ; the lining epithelium has not been shed.

The parts were removed from a middle-aged lady, on Feb. 20th, 1905. On the 17th she had been seized with severe pain in

the right side of the abdomen, but until then, had had no trouble. When seen, her temperature was 104° F., pulse 120; there were signs of peritonitis in the region of the gall-bladder. Operation was carried out on the following morning. A sero-purulent exudation was found in the general peritoneal cavity, and the exterior of the gall-bladder was of a dark plum colour. After separation of adhesions, the cystic duct was grasped in forceps close to the common duct, the bladder and cystic duct being then removed. The patient made a good recovery.

Presented by A. W. Mayo Robson, Esq., 1905.

2830 K. A gall-bladder, measuring five inches in length, which was excised during life. It walls are thickened so as to measure about $\frac{3}{16}$ths of an inch, and its interior is of a deep black colour from congestion and interstitial hæmorrhage.

With the gall-bladder is mounted a flake of exudation which was removed from within it at the operation, and in which many small polyhedral calculi are entangled.

The peritoneum is intensely congested. Microscopic sections reveal extensive interstitial hæmorrhage into, but no destruction of, the mucosa.

From a gentleman, æt. 37, who had suffered from indigestion and flatulence since youth. From the beginning of January 1905, he had had pain in the right hypochondrium, but no swelling was noticed until early in February, from which time the symptoms became more acute.

At the operation on March 1st the "tumour" was found to be a portion of the liver overlying an enlarged and inflamed gall-bladder. The gall-bladder and cystic duct were distended with pus, and contained four hundred small calculi. The patient made a good recovery.

Presented by A. W. Mayo Robson, Esq., 1905.

2830 L. Half of a gall-bladder which was excised during life. At the fundus the walls are thickened so as to measure about a quarter of an inch, the lumen of the bladder being here contracted and sharply curved upon the rest. The thickening itself is due to the formation of a series of closely arranged cysts, of fairly uniform size, the largest of which measure about an eighth of an inch in diameter. One of them near the origin of the cystic duct is filled with a pigmentary

concretion ; on the left-hand side of the section there is exposed a solitary cyst of precisely the same character ; and in the adjacent part of the gall-bladder may be seen the mouths of other similar cavities which form distinct hemispherical projections on the exterior of the viscus, though their communication with its interior is at present free. The lesion at the fundus, therefore, appears to have resulted from distension of the recesses normally present in connection with the mucosa of the gall-bladder rather than from a proper adenomatous formation in which cystic distension has occurred.

From a patient, æt. 53, who had been subject to attacks of pain in the region of the gall-bladder, the pain passing through to the right shoulder : slight jaundice had occasionally been present.

At the operation the gall-bladder was found considerably thickened at the fundus ; there were no calculi in it or in its ducts : the liver was normal. The viscus were removed after ligature of the cystic duct. No drainage was resorted to. Recovery was complete.

Presented by A. W. Mayo Robson, Esq., 1905.

2830 M. A collection of biliary calculi. That placed in the centre of the group, a facetted calculus about five eighths of an inch in diameter, was removed from the cystic duct ; the rest were taken from the gall bladder.

From a woman fifty years of age. Twelve years ago a swelling was detected in the right side of the abdomen. This remained nearly stationary until the autumn of 1904. In March 1905 the swelling extended from the right hypochondrium to the groin ; it was freely moveable laterally, and on bimanual palpation its lowest part could be pressed into Douglas's pouch. No jaundice and no acute attacks of pain occurred in the course of the disease. Operation was carried out March 7th, 1901. The swelling was then found to be the gall-bladder, which held about two pints of pale pinkish-grey fluid, thirteen large facetted calculi, and over two hundred smaller. The cystic duct was blocked by a single calculus : an incision was made into the duct, the concretion removed, and the aperture closed with catgut suture. The incision made into the gall-bladder was closed in a similar way and the viscus returned into the abdominal cavity without drainage. The patient made a good recovery.

(Alban Doran. Brit. Med. Journal, June 17th, 1905, p. 1316.)

Presented by Alban Doran, Esq., 1905.

2906 D *c*. An enlarged thyroid gland together with the tongue, trachea, œsophagus, thymus, etc., from a case of Graves's disease.

The thyroid is considerably and uniformly enlarged, each lateral lobe measuring about three and a half inches in its chief diameter. The divided surface presents to the naked eye no vesicular structure and no colloid, but is uniformly solid and homogeneous. At the back of the preparation on the left side, one of the parathyroids has been dissected out. The body in question, beneath which a fine rod of pink glass has been passed, is quite distinct from the thyroid gland, and is of narrow, somewhat oval form ·9 cm. ($\frac{3}{8}$ inch) in length: it lies in the groove between the lateral lobe and the pharynx, and above the entrance of one of the main branches of the inferior thyroid artery, into which a piece of red glass is inserted.

Microscopic examination of the *thyroid* shows it to consist of a compact tissue made up of the walls of closely-set narrow spaces of complex form, variously lined with cubical and columnar epithelium. No colloid is present, the scanty contents of the gland-spaces being of a finely granular character. The stroma is in places the seat of abnormal lymphocytic infiltration. The microscopic sections of the *parathyroid*, which were made so as to include the whole of the gland, display groups of fat cells fairly abundantly scattered amidst the proper glandular tissue, which is itself so compact as in a general and superficial way to resemble lymphatic tissue. Well-formed arterioles run in conspicuous numbers in the primary trabeculæ of the interstitial connective tissue. As studied under a high power the gland-cells are for the most part so closely arranged that no disposition can be discovered. In character the cells themselves are polyhedral, the cell body of conspicuous size, and furnished with a spherical nucleus. At the borders of the intraglandular trabeculæ of connective tissue a certain grouping, but no definite arrangement, of the gland cells is brought about by the penetration of the capillaries which ramify in

the mass. There is nowhere any trace of lumen in the cell-groups.

E. L., æt. 20, admitted into St. Thomas's Hospital, June 1897, with no history of previous illness except asthma.

The onset of the disease was subacute; the patient first noticed gradual increase in the size of her neck and this was followed by palpitation, tremor, and loss of flesh. She had suffered from several digestive crises, during one of which she was admitted. She was then well nourished, with marked exophthalmos, and suffering from severe diarrhœa and vomiting, with profuse perspiration. The thyroid was large with a marked thrill over it. The patient had two attacks of syncope within twenty-four hours of admission, during the second of which she died.

The autopsy was conducted by Dr. Hector Mackenzie. The body was much wasted, with very little subcutaneous fat, and no exophthalmos. The larynx was egg-shaped as a result of compression. The bases of the lungs were in a state of partial consolidation.

Nothing suggestive of myxœdema is noted in the post mortem report.

Presented by St. Thomas's Hospital, 1905.

3350 B. The right lung of a child which, as shown in the cut surface, is uniformly transformed into a series of cyst-like air-holding cavities, the largest of which are about the size of peas. Between the cavities may be seen a ramifying basis of pulmonary tissue in which the normal vesicular structure is in many places discernible.

From a child, æt. 3 years, admitted into the Westminster Hospital under the care of Dr. de Havilland Hall, March 1904. For two months the patient had had pain in the back, and for one month cough. On admission the pulse was 148; Respiration 76; the lips were blue, and the alæ nasi working. The percussion note over the left side of the chest anteriorly was not quite equal in resonance to that over the right: over both sides there were numerous fine râles.

On March 25th, the cyanosis had increased, and respiration was further embarrassed. The temperature ranged between 95°·4 and 100°·2.

Just before death an attack of vomiting came on. At the autopsy the right pleural cavity was found distended with air under pressure, the diaphragm being displaced downwards. There was no fluid in either pleural sac. The bronchi were filled with frothy brownish mucus; there was no evidence of tracheal or bronchial obstruction from pressure. The liver both on the surface and in section presented small miliary foci which proved microscopically to be connected with the bile-ducts; they were not

histologically tuberculous. The heart and other viscera appeared normal. Microscopically the cavities for the most part showed no lining, but were surrounded by accumulated round cells; in a few of the smaller there was a well-marked columnar epithelium resembling that of the bronchial mucosa. The irregularity of some of the spaces was suggestive of dilated infundibula. The less altered bronchioles were filled with exudation and cells; about these spots the alveoli were choked with catarrhal products.

(J. M. Bernstein. Trans. Path. Soc. vol. lvi.)

Presented by the Westminster Hospital, 1905.

A 3502. A tumour of complex form, removed in three portions. The oval piece mounted on the right-hand side of the preparation, lay on the thyro-hyoid membrane through which the narrow anterior end passed so as to be continuous with the portion which is mounted on the left: of the last-mentioned the upper part lay beneath the mucosa of the epiglottis, and the lower, larger part, in the right ary-epiglottic foid. Of the extra-laryngeal piece microscopic sections were cut in the direction of the longer axis and in a plane corresponding with its flatter side, the sections including about half of the mass. The structure as so shown is fairly uniform and typical of a soft fibroma.

The tissue varies somewhat in closeness in different fields. Where densest it consists of closely apposed intersecting bundles of delicate wavy connective tissue: amongst the fibres of these, connective-tissue cells are scattered in conspicuous numbers. In other spots the texture of the intersecting bundles is less compact, the groups of their component fibres being separated or disparted, yet still interconnected by delicate fibrils pertaining to the bundles themselves. These differences are to be ascribed to the presence of a varying amount of œdema. In the œdematous tissue clusters of lymphocytes occur in addition to the other cell forms. Well-developed arterioles ramify in the new formation.

There is no fat in any of the sections examined, nor are any nerve-fibres discoverable.

The elongated form of the tumour and the fact that it has tracked through the thyro-hyoid membrane suggested its possible source in the internal laryngeal branch of the

superior laryngeal nerve, but transverse sections of the narrow neck which perforated the thyro-hyoid membrane show only intersecting bundles of connective tissue, as already described, and nowhere any medullated nerve-fibres.

Although no evidence is forthcoming that the growth is a neuro-fibroma, it has nevertheless, probably, tracked along the internal branch of the superior laryngeal nerve or the superior laryngeal artery.

The patient, a lady æt. 40, had in 1838 first observed a swelling in the left submaxillary region, which in 1898 had attained the size of a walnut. It became tender on pressure; the patient's breath grew permanently short, and she became subject to attacks of spasm in the throat. A tumour was then discovered within the larynx, in addition to that already obvious externally. Tracheotomy was subsequently performed in consequence of the increasing difficulty of breathing. Pressure on the tumour in the left submaxillary region caused immediate retching and coughing. There was no enlargement of the lymphatic glands in the neighbourhood. Laryngoscopic examination revealed great tumefaction of the left half of the larynx, which anteriorly extended to nearly the free border of the epiglottis, and behind to the left arytænoid cartilage.

The form of the corresponding parts of the larynx had become obliterated in this smooth round swelling which was covered with pale mucous membrane.

Of the epiglottis not much more than the free border could be seen, and this was so twisted that the epiglottis itself looked towards the right. Neither of the vocal cords was visible, though it was concluded from the integrity of the voice that the left vocal cord itself was not involved in the process. The right arytænoid cartilage moved well; the left half of the larynx was almost immoveable. On touching the tumefaction with the probe, a feeling of elastic resistance was encountered, similar to that experienced on pressing the external tumour.

The condition of the patient remained *in statu quo*. In June 1904, the patient having worn a tracheotomy cannula for about twelve years, the tumour was removed, since there was much salivation and accompanying conjunctivitis. Laryngoscopic examination before the operation showed that the swelling of the left half of the larynx had greatly increased, the form of the epiglottis being completely lost; the external tumour, however, was only slightly larger than it formerly had been. On external pressure the retching and coughing, which had formed so characteristic a feature on former occasions, were now accentuated.

The operation itself was carried out June 3rd, 1904. The external tumour was cut down upon, and on dissection was

found to pass at its end into a thin thread-like pedicle, which was followed as far as possible; the growth, however, which in parts was somewhat friable, broke during its removal, into the three pieces shown in the preparation. Both portions of the tumour within the larynx were enucleated with the finger. The mucous membrane forming the internal lateral wall of the large cavity resulting from the removal of the tumour was stitched to the adjoining tissues, as during inspiration it was strongly drawn inwards. The external wound was closed for its entire length, only a small drainage-tube being left in its deepest part. The tracheal tube, which the patient had worn nearly thirteen years, was then removed. The wall of the opening, which was lined for a considerable distance with skin, was dissected off, and the aperture closed. Recovery was complete.

(Sir Felix Semon. British Medical Journal, Jan. 7th, 1905.)

Presented by Sir Felix Semon, 1905.

3597 L. A vertical section of a kidney, the upper part of which is the seat of a vascular tumour about three and a half inches in diameter. In places areas of the growth, which microscopic examination shows to be a spindle-celled sarcoma, are opaque and bloodless from necrosis.

From a gentleman, æt. 50, whose wife had recently died of rapid cancer. The patient complained of malaise in Sept. 1903, and in April 1904 he began to pass bloody urine with small brown clots, but without other symptoms. Cystoscopy showed the orifice of the left ureter and adjoining mucosa to be abnormally vascular and swollen: no efflux was noticed. No renal tumour was felt. By means of Luys segregator, the urine from the left kidney was found to contain short granular casts, a few ureter cells, and blood discs.

As the bleeding persisted in spite of all treatment, the left kidney was explored in July 1904, and being found the seat of a growth, it was removed.

Presented by E. Hurry Fenwick, Esq., 1905.

3708 D. Half of a phosphatic calculus formed upon a piece of hazel wood. The foreign body had perforated the bladder from the rectum, but the wound in the bladder itself had afterwards healed.

The calculus was removed by Dr. Allan Duke, Sept. 1848, from a patient named Stephen Sylvester.

Presented by V. Arkle, Esq., 1905.

3708 E. Half of an oval phosphatic calculus an inch and three quarters in its longer diameter, which has formed upon an ear of wheat-straw.

The calculus, which weighed 32·75 grammes, consists of ammonio-magnesian phosphate and calcium carbonate.

It was removed by suprapubic operation from the urinary bladder of a man, sixty-five years of age, who was admitted into St. Thomas's Hospital, Oct. 1904, under the care of Mr. W. H. Battle. About sixteen months previously the ear of wheat-straw had been pushed into the patient's urethra when he was drunk. Irritability of the bladder with pain and hæmaturia had been complained of for a year: there had been an occasional stoppage of the stream during micturition, and six months ago a small calculus was passed. Instrumental examination disclosed the presence of a calculus which was fixed in the neck of the bladder, so that only a small sound could be passed beyond it: the calculus was easily felt in the position of the prostate on rectal examination. The urine which was passed in scanty amounts, was alkaline, and contained much pus, blood, and mucus.

At the operation, on the bladder being opened suprapubically, the stone was found to be impacted in its neck and was lifted from its position with some difficulty. The mucous membrane of the floor of the bladder was ulcerated and bled freely as the calculus was extracted. Recovery was complete.

(W. H. Battle. Trans. Path. Soc. vol. lvi.)

Presented by St. Thomas's Hospital, 1905.

3792 C. Half of a sarcoma measuring about two and a half inches in its longer diameter, which was removed during life from the right occipital lobe, of which the superficial part still covers the growth. A considerable amount of extravasation has taken place into the tumour, which histologically has the characters of a sarcoma, and consists of polymorphous cells of considerable size devoid of processes, lying without recognizable order between the vessels of the growth. Calcareous spherules occur in the microscopic sections, and a collection of such may be seen in the divided surface of the preparation in the highest part of the neoplasm.

The tumour which, after removal of the bone, etc., was visible from the surface, involved on the outer aspect the first and second occipital convolutions, and on the inner aspect, the cuneus; in front it was limited superficially by

the parieto-occipital fissure: it extended some distance forwards in the substance of the brain, the "tail" seeming to come from the neighbourhood of the descending cornu of the lateral ventricle.

The parts were removed from a gentleman, æt. 54, who was quite well until June 1903, when he came under the care of Dr. Ferrier for occipital headache and slight attacks in which he lost his way in the street; there was no vomiting and no fit.

In Feb. 1904, he had become somewhat dull mentally, and for six weeks there had been double optic neuritis, failing strength in walking, and occasional incontinence. There was no history of syphilis. The right testicle had been removed twenty years ago, and the left, fifteen, in each case for tuberculosis: there was no tubercular history in the patient's family. For five years the patient occasionally suffered from Catherine-wheel visual spectra on the left side, at which time the growth of the tumour probably commenced. At the date of operation in Feb. 1904, there was right hemianopsia with slight left hemiplegia and slight left hemianæsthesia.

Operation, first stage, Feb. 27th. A scalp flap was thrown down over the right occipital region and bone removed to the tentorium. Second stage, March 3rd: the scalp flap was thrown down and dural flap fashioned.

The cortex of the cuneus and of the first and second convolutions were then found altered in appearance and very vascular. The tumour was slowly enucleated; it extended forwards into the centrum ovale, and terminated in a long tail which seemed to reach the descending cornu of the lateral ventricle. The patient at first did well, but about the middle of April the flap began to bulge, and on May 2nd it was opened, when a growth exactly occupying the original site of the first was found and removed. Death took place on May 4th.

Presented by Dr. D. Ferrier and C. A. Ballance, Esq., 1905.

3792 D. A somewhat oval tumour about an inch and a quarter in its chief diameter, which was removed from the cerebellum. On one aspect it is slightly nodular and smoothly covered with the membranes; on the other, incomplete and ragged. Histological examination shows the growth to be a fibrosarcoma.

From a woman, æt. 49, who was seen by the donor, with Mr. J. R. Lunn and Dr. C. Beevor, at the Marylebone Infirmary in 1894. Twelve months previously she began to suffer from vertigo and pains in the head, chiefly in the frontal region.

During the last six months there had been mental dulness, deafness of the right ear, and failing of the eyesight. Three months ago, severe pain in the back of the head, attacks of vertigo and tinnitus of the right ear had been complained of; there had been no loss of consciousness. No history of any injury to the head was forthcoming.

The symptoms present on Nov. 14, 1894, were: headache, vomiting; double optic neuritis, the right disc being the more swollen; lateral and vertical nystagmus, the former more marked on looking to the left; much vertigo; a tendency to fall backwards towards the left side. There were scars of old suppurative otitis on the right drum. A watch was heard at a distance of only half an inch on the right side; left side normal. Right knee-jerk more brisk than left. No incoordination of limbs; no anæsthesia anywhere or loss of muscular sense; no tenderness on percussion of the cranium.

Operation, Nov. 19th, 1894. First stage: scalp-flap in right occipital region thrown down and removed as far as the foramen magnum, and above and in front so as to expose the horizontal and vertical portions of the lateral sinus, and posteriorly as far as the mid line.

Second stage; Nov. 26th, scalp-flap thrown down and dural flap fashioned. A solid tumour was found attached to the dura mater over the inner part of the posterior surface of the petrous bone; it was somewhat firmly fixed, and the finger had to be insinuated between the pons and the growth to get the latter away. The patient recovered after a somewhat protracted convalescence. The 5th, 7th, and 8th nerves were destroyed in the operation. The right eyeball ulcerated, and had to be removed. The optic neuritis in the other eye subsided, the eyesight being left good.

In April 1905, the patient was still quite well.

Presented by C. A. Ballance, Esq., 1905.

3795 C. The anterior portion of the left hemisphere of a brain. In connection with the anterior communicating artery there has formed a spherical aneurysm about three quarters of an inch in diameter. The aneurysm is completely filled with blood-clot, which is intimately adherent to its inner surface. A bristle has been passed through the trunk of the internal carotid along the anterior cerebral. The mouth of the sac is still evident as a small circular opening which led into the anterior communicating artery, the trunk of which is divided immediately beyond. The optic commissure and nerves were somewhat displaced backwards,

but were compressed only to a trifling degree. The aneurysm itself lies mainly in an excavation in the hinder part of the orbital surface of the frontal lobe, and compresses the inner root of the olfactory nerve.

From a woman, æt. 63, who died in Colney Hatch Asylum in Sept. 1901, and who was certified as insane about six years before admission, suffering from delusions of persecution and hallucinations of hearing. At that time she complained that her head "felt queer," and that "it was like a waterfall in it." She was in feeble health, but her only physical defect was a slight tendency to ptosis of the right upper eyelid, with slight outward divergence of the right eyeball. Her dementia rapidly increased; a month before death she developed asylum dysentery; from this she appeared to be recovering, when she died suddenly, possibly from the thrombosis which was found after death in the left internal carotid artery.

At the autopsy healing dysenteric ulcers were recognized in the large intestine; the kidneys were slightly granular, and the organs somewhat fibrotic; the cardiac valves were healthy.

Presented by Dr. C. F. Beadles, 1905.

3795 D. The anterior portion of the left hemisphere of a brain. In connection with the left internal carotid artery, immediately on its entry within the cranial cavity, there has formed a somewhat bilobed aneurysm about an inch and a half in chief diameter; the sac is mostly filled with firm laminated clot, but through the centre of this is a narrow cleft which held recent coagulum and fluid blood. A piece of white glass has been passed from the divided end of the internal carotid artery (which is cut across close to the sac) into the aneurysm, between the wall and the clot. A rod of pink glass has been passed from the same divided end of the artery, behind the sac, along the anterior cerebral and out by the anterior communicating, which vessels lie on the superior aspect of the aneurysm.

The aneurysm is embedded chiefly in the under part of the left frontal lobe, but it also compressed the frontal lobe of the right side; posteriorly it extends over the infundibular space; the roots of the olfactory and optic nerves were seriously damaged.

Blood was found extravasated into the pia-arachnoid, between the frontal lobes and the sac; the source of this

blood, which has been removed, was apparently the left anterior cerebral artery.

The cerebral arteries appeared healthy. The kidneys were reduced in size and granular.

From a female, æt. 48, who died in Colney Hatch Asylum, Aug. 13th, 1902. She was the subject of aural hallucinations, optical delusions, and delusions of electrical annoyance, and had been violent towards her relatives, in 1896: the only physical defect at that time was a very slight outward and upward divergence of the right eyeball. She was melancholic; as she brightened up, she was removed from the Asylum in Dec. 1896, although her delusions persisted.

On Feb. 19th, 1897, she was readmitted in a melancholic state with the same form of delusions. At this time she is said to have complained of "a hissing noise in her head, which she thinks due to electricity"; she complained of a voice continually annoying her. The outward divergence of the right eyeball had slightly increased and there was a very slight tendency to paresis of the right side of the face. She again became more cheerful, and went home on Oct. 15.

On April 2nd, 1898, she was readmitted to the Asylum for the third time in a depressed mental state. She complained that "when she sneezes under the bedclothes she sees the bronze flash from her eyes; says she is being bronzed and that electricity is applied to her." The condition of the eye was much the same, but the facial paresis had slightly advanced. For two years or more there was little change in her condition. The aural hallucinations and optical delusions persisted; she heard men under the floor, who applied electricity to her; she saw "spirits flying about," which gave her great annoyance and which occasionally made her excited. She would suddenly stamp on the floor or throw things at the spectre, but generally she was inclined to be melancholic. Her hearing remained good, and there was never any indication of defect of sight; she did needlework almost up to the last. During the last year of life the right eyeball became more markedly turned outwards. There was never any form of fit or seizure, and no paralysis of the limbs or left side of the face. Speech was unaffected, and she was always fairly coherent. There was occasional vomiting unassociated with food, during the last few months. She never complained of headache or pain in the head, and there was never any attack of giddiness. She gradually lost flesh, and although now looking ill, never spoke of feeling so.

A week before death she was moved to an infirmary ward, but was not confined to bed. On Aug. 9th, 1902, she had a sudden apoplectic seizure and remained in a comatose state for four days.

After death the kidneys were found reduced in size, and granular. There was no valvular disease of the heart; aorta slightly atheromatous; the cerebral arteries appeared normal.

Presented by Dr. C. F. Beadles, 1905.

3835 D. The lower portion ~~of~~ the right hemisphere of a brain. The posterior and descending cornua of the lateral ventricle are considerably dilated, apparently from the shrinkage following softening of the cerebral tissue bounding it on the outer side.

At the anterior extremity of the corpus striatum there is a clot indicative of past hæmorrhage, but there was no evidence, in the recent state, that blood had escaped into the ventricle. The vessels at the base of the brain were very atheromatous.

From a female lunatic, æt. 64, who died in Colney Hatch Asylum after a residence of five and a half years. At the time of admission she was in fairly good health and without any sign of paralysis or physical defect. She had had delusions of suspicion for six months, during which time her memory had been failing. There had been no form of fit.

About ten weeks after admission she suffered from an apoplectic fit, associated with epileptiform convulsions, and from this time was more or less helpless and affected with left facial paralysis; progressive dementia, incoherence, and loss of memory ensued.

After death the calvaria was found thickened and congested; the finer membranes were congested but otherwise natural. The brain weighed 39 ounces. Both kidneys were small and fibrotic. The heart was somewhat hypertrophied; the aorta and mitral valves thickened.

[Mounted in 50 per cent. glycerine.]

Presented by Dr. C. F. Beadles, 1905.

4005 A. A vertical section of an eyeball removed after death.

The retina has been displaced inwards by a firm growth which microscopical examination shows to be a spindle-celled sarcoma in which a slight degree of pigment-formation has taken place. In the vicinity of the cornea the growth projects externally, but in the section the dividing line of the sclerotic is readily traceable between the two portions.

The eye was glaucomatous and cataractous.

The skin was found, after death, thickly studded with small nodules of new growth, especially over the chest and arms. *Presented by H. J. Price, Esq.*, 1905.

4129 C. A Common Mole (*Talpa europæa*) the skin of which is quite devoid of hair; the tactile bristles of the snout and

those on the fore paws, however, are of normal length. The integument is everywhere thrown into folds, which in general take a horizontal direction. The animal, when accidentally unearthed, was quite active.

Microscopic sections of the hairless skin show the presence of closely-set follicles, partly filled with shed epithelium, but no hairs.

Presented by Jonathan Hutchinson, Esq., F.R.S., 1905.

A **4311.** The testicles with the prostate gland and bladder of a dog in which the vasa deferentia were ligatured and divided, when the animal was fully grown. An interval of five months was allowed to elapse between the date of the operation and that at which the animal was killed.

The urethral segments of the divided vasa have been marked by means of red glass rod which has been run through each near the site of its occlusion.

Each testicle is of full size, and in the right (of which a vertical section has been made) microscopic examination showed spermatogenesis to be in active progress. The prostate is quite normal in form, and undiminished in volume.

(C. S. Wallace. Trans. Path. Soc. vol. lvi. p. 104.)

Presented by C. S. Wallace, Esq., 1905.

4355 P. The anterior half of a much-enlarged prostate gland, the organ measuring two and three quarter inches in transverse diameter. The urethra has been converted into a deep slit-like channel. The divided surface is parted out by the stroma of the gland into a series of closely-packed spheroidal masses of various size, which present an almost uniformly and finely spongy texture. In places the tissue is minutely cystic, but the volume of glandular substance present proves that the enlargement is not ascribable to a mere distension of the glandular tissue by retained products. The mass is for the most part surrounded with a "capsule" constituted by the compressed and displaced outermost parts of the gland.

As seen at the back of the preparation, a small piece of

the membranous portion of the urethra has been torn away in removing the enlarged organ.

The enlarged gland was removed by operation from a man, seventy-seven years of age, who had suffered from complete retention of urine for six years.

The intravesical projection of the prostate was circular, or of the "os uteri" type.

(C. S. Wallace. Trans. Path. Soc. vol. lv.)

Presented by St. Thomas's Hospital, 1905.

4362 A. A collection of fifteen calculi removed by operation. Most of them present facettes arising from growth whilst in mutual apposition. The largest is of very irregular form and has an extreme diameter of $\frac{5}{8}$ inch; the smallest of not more than $\frac{1}{5}$ inch. That mounted mesially at the top of the preparation presents a lustrous yellow surface; and small areas of a similar character may be seen on certain of the others.

Chemically they consist mainly of calcium phosphate, with a trace of carbonate. No uric acid was present, and no magnesium.

The patient was a gentleman, æt. 73, who had four years previously been examined by a surgeon and pronounced to have an enlarged prostate. For twelve months he had suffered from difficult and frequent micturition; and for six months had passed all his urine by catheter. The urine was acid, and contained a little pus and often a little blood. Rectal examination showed the prostate to be considerably enlarged and slightly uneven on the surface; pressure led to a distinct grating sensation. The calculi shown were removed by a median perineal incision made into the membranous portion of the urethra; they were found to lie in several more or less distinct sacs in the prostate.

Presented by A. Pearce Gould, Esq., 1905.

4427 B. The os penis of an Otter (*Lutra vulgaris*), which has been completely fractured about half an inch from its anterior extremity; the fragments have united after slight lateral displacement. The fracture was probably caused by the bite of another male in fighting, the habit of the animals being to seize one another by the genitals.

(J. Bland-Sutton. Lancet, vol. 169, July 1st, 1905.)

Presented by J. Bland-Sutton, Esq., 1905.

4552 E. An oval parovarian cyst, four and a half inches in its longer axis. At the back of the preparation, the Fallopian tube, considerably elongated, may be traced over the cyst, at one pole of which its fimbriated extremity is recognizable. In consequence of a twist of the pedicle, the ovary has, at some time, been slowly divided into two nearly equal parts, which are merely connected by a narrow isthmus of ovarian tissue. Each of the divided surfaces is concave and smoothly healed.

From a woman, æt. 23, married, childless, and without history of miscarriage. For the last two years the patient had suffered from pain in the lower part of the abdomen, worse since marriage a year ago; dyspareunia on the left side; menorrhagia; micturition painful and difficult. On vaginal examination the uterus was found retroflexed; there was a painful swelling in front of the uterus, reaching a little above the left Poupart's ligament.

Presented by Dr. Comyns Berkeley, 1905.

4644 B. A somewhat oval cyst about an inch and a quarter in chief diameter, removed from the right inguinal canal of a female, and probably arising in the canal of Nuck; to one aspect there adheres a certain amount of indurated fat.

From a lady, æt. 32, who had noticed a swelling in the right groin for many years, giving her every few months more or less trouble. Some few weeks before operation, the swelling had increased to the size of a small egg and was very painful. There was no impulse on coughing. Owing to the doubtful character of the swelling, an exploration was carried out, and the cyst removed. The swelling had been thought by the practitioner in attendance to be a hernia, and a truss had been worn for some while before the cyst was excised by the donor.

Presented by T. Bryant, Esq., 1905.

4714 A. Two of five fœtal sacs which were found free in the abdominal cavity of a Rabbit, into which they had escaped after rupture of the uterus. The sacs are constituted by the membranes, on the exterior of which a coagulum of fibrin has formed. The amniotic fluid has been absorbed. Of the upper sac, half has been cut away to expose the embryo.

The abdomen of the mother exhibited signs of former

peritonitis, but none of placental attachment. The evidence of uterine rupture was apparent in the presence of a scar.

The fœtuses must have been retained for at least eight months before the animal was killed, since during the time she was kept in the laboratory, she produced four normal litters.

In one sac there were four fœtuses; the impaction of this probably led to the rupture of the uterus.

(M. S. Pembrey and G. Bellingham Smith. Trans. Obstet. Soc. London, vol. xlvi. p. 283.)

Presented by Dr. M. S. Pembrey, 1905.

A 4724 *e*. The pregnant uterus of a woman, which was removed after labour had commenced, on account of the obstruction occasioned by the growth of a large fibromyoma about four and a half inches in chief diameter growing from the cervix. The tumour in question almost completely occupied the cavity of the true pelvis. The left arm of the fœtus presents through the cervix; the head is locked above the new growth.

There is a second concavo-convex tumour of inconsiderable size in the anterior wall of the uterus near the fundus.

The uterus was removed from a woman thirty-three years of age. The patient had ceased to menstruate since October 1903, and came under the observation of the donor of the specimen in March 1904. At that date she complained of a swelling in the lower part of the abdomen. Examination showed that this was a tumour in the anterior wall of a gravid uterus; and the pelvis also contained a large rounded elastic swelling. As there were no urgent symptoms, she reported herself at intervals. The uterus rose in the abdomen, but the mass in the pelvis remained unaltered. On May 9th the patient was taken with labour, and the left arm of the fœtus was found protruding through the os. The pelvic tumour completely obstructed the passage, and the fœtus was found to be dead. A free abdominal incision was made and a complete removal of the parts carried out, comprising the uterus and cervix with the fœtus, placenta, ovaries and Fallopian tubes. The operation offered no difficulty and was quite successful in its result.

(J. Bland-Sutton. Trans. Obstet. Soc. vol. xlvi. p. 238.)

Presented by J. Bland-Sutton, Esq., 1905.

A 4770. A breast from one margin of which there projects a flattened oval tumour about three and a half inches in its chief diameter. The growth is sharply circumscribed and encapsuled, and presents a lowly lobular or furrowed surface. Its texture, as shown in the section at the back of the preparation, is uniformly compact and free of clefts or cysts.

Microscopic examination shows the growth to be an adenoma, of normally formed acini and ducts closely distributed in a fibrous stroma.

From an unmarried lady, twenty-five years of age. The tumour had been slowly growing for about four years and caused pain and much inconvenience when the patient played the violin.

Presented by J. Bland-Sutton, Esq., 1905.

4912 A. Portion of the peritoneum of an Ox the free surface of which is thickly covered with clusters of firm nodules of necrotic tubercular tissue.

The divided surface of the nodules, as best seen on the left-hand edge of the specimen, is opaque and of pale yellow colour with whiter points of calcification. Microscopic examination shows the presence of large numbers of acid-fast bacilli in the caseous substance, and many in the multinucleated giant cells which are numerous in the new tissue.

[Mounted in 50 per cent. glycerine.]

Presented by H. Hammond Smith, Esq., 1905.

4937. The hearts of two Rabbits.

That on the left-hand side is normal. That on the right shows the early changes due to endocarditis of the mitral valve. Along the borders of the mitral curtains there are a certain number of low opaque elevations which in the recent state were of pink-red colour.

The animal was injected intravenously with a pure culture of the Diplococcus rheumaticus raised from the pericardial effusion of a child who died of rheumatic

pericarditis. On the fifth day multiple arthritis had developed, with a systolic mitral murmur and tachycardia.

[Mounted in 50 per cent. glycerine.]

Presented by Dr. F. J. Poynton, 1905.

4938. The heart of a Monkey, the left ventricle and the aorta being laid open to show the mitral and aortic valves. On each segment of the aortic valve large vegetations have been produced.

The lesions shown resulted from the intravenous injection of a pure culture of the Diplococcus rheumaticus.

In the recent state small red granulations were obvious on the border of the mitral valve.

[Mounted in 50 per cent. glycerine.]

(F. J. Poynton and W. V. Shaw. Path. Soc. Trans. vol. lv. p. 135.)

Presented by Dr. F. J. Poynton, 1905.

4939. The heart of a Monkey, the left ventricle being laid open. In the substance of the myocardium are several minute pyæmic abscesses ; along its margin, the mitral valve presents patches of opacity from recent endocarditis. The lesions resulted from the simultaneous injection, intravenously, of pure cultures of Diplococcus rheumaticus and Staphylococcus aureus. Death occurred on the fifth day. Extensive arthritis developed, accompanied with fibrinous exudation which contained the Diplococcus in large numbers.

The pyæmic abscesses in the myocardium contained vast numbers of the Staphylococcus aureus. Both micro-organisms were isolated after the death of the animal, the Diplococcus from the arthritic exudation, the Staphylococcus aureus from the blood.

[Mounted in 50 per cent. glycerine.]

(F. J. Poynton and W. V. Shaw. Path. Soc. Trans. vol. lv. p. 137.)

Presented by Dr. F. J. Poynton, 1905.

TERATOLOGY.

A 164. Three specimens of Trout fry (*Salmo fario*), showing triplication of the embryo.

Presented by C. G. Seligmann, Esq., 1905.

191 A. The heads of two Bull pups from the same litter.

In one there is a cleft palate associated with a lateral hare-lip on the left side, the fissure involving the premaxillo-maxillary suture: in the other the hare-lip is double and associated with a complete cleft palate, the median fissure bifurcating anteriorly where it passes between the premaxillary bones and the superior maxillæ.

Presented by Edmund Owen, Esq., 1905.

202 A. The head of a Greater Sulphur-Crested Cockatoo (*Cacatua galerita*) of which the mandible is bifid.

Presented by the Zoological Society, 1905.

518 A. The bones of the lower extremities of a man thirty years of age showing an asymmetrical congenital malformation.

In the *left* extremity the tibia and fibula are of the full length and present no marked abnormality except that both are slightly curved forwards, and that the head of the tibia is unnaturally flat from before backwards.

Articulating with the head of the tibia is an osseous element three and a half inches in extreme length, which represents an ill-developed femur. The bone itself is of somewhat triangular shape and presents inferiorly two condyles separated by an intercondylar notch, though the projecting posterior portions of the condyles are scarcely represented.

The femoral condyles articulate with the upper surface of the head of the tibia: there is no patellar facette in the normal position.

The summit of the rudimentary femur presents a smooth oval surface with slightly overlapping borders, with which a further osseous element articulates. The latter, which

from its size and general form may be viewed as a displaced patella, measures about an inch and a quarter in its longer diameter, is somewhat pyramidal, and at its base is smoothly covered with cartilage.

On the *right side* the skeleton of the limb is considerably more misshapen and much the shorter of the two, measuring in the straight line only thirteen inches as compared with eighteen.

The foot was normal, except that (as in the left) the bases of the fourth and fifth metatarsal bones were fused.

The fibula is but five and a half inches in length, and except for its lower end is uniformly diminutive; the lower end has its normal relations, and is of full size; the upper does not articulate with the tibia.

The shaft of the tibia, a short distance from its lower end, expands into a broad triangular process, each of the upper angles of which is enlarged in a manner suggestive of an articular extremity. The outer of these, which lies about three inches above the unattached upper end of the fibula, probably represents a greatly flattened head, whilst the inner is possibly an outgrowth of bone into the adductor muscles.

The upper border of the triangular expansion is concave and bridged across by a ligamentous structure with which an undersized patella is connected.

The following description of the parts, as examined during their removal after death, is extracted from the donor's notes :—

Left side.—About three inches from the anterior superior spine of the ilium is a projecting, osseous mass (misdeveloped femur) against the lower end of which the head of the tibia articulates. The upper end of the mass referred to lies below the anterior inferior iliac spine and articulates with the pelvis externally to the thyroid foramen. The acetabulum was wanting, though this side of the pelvis was more developed than the right. With the inner and lower surface of the upper end of the rudimentary femur a sesamoid bone articulated.

Right side.—A projecting nodule of bone the size of the last joint of a large thumb, is attached to the pelvis in a situation corresponding with the anterior inferior spine of the ilium. There is no trace of an acetabulum, but above and to the outer side of the thyroid foramen is a smooth surface with which the bone described articulated.

The bones were taken from a man who died of phthisis in the Royal Portsmouth Hospital.

The case was recorded, with figures, when the patient was ten years of age, in the Transactions of the Pathological Society (vol. xxxv.); and a second time, after the patient's death, when an adult, in the Transactions of the same Society (vol. lvi.).

Presented by Henry Rundle, Esq., 1905.

561 c. The liver of a Cat, of which the gall-bladder is duplicated A piece of green glass has been passed along the single cystic duct. *Presented by Mr. C. Scragg*, 1905.

628 b. Portion of the trunk of a fœtus at term showing the hypoplasia of the adrenals found associated with anencephalism. The fœtus was anencephalous and amyelic.

The kidneys are of the normal size and lobulated form, but the adrenal bodies, whilst preserving their proper shape, are extremely thin and small. That of the left side measures only half an inch in the longer horizontal axis; that of the right side is longer in the horizontal but less in the vertical direction than its fellow.

Presented by S. G. Shattock, Esq., 1905.

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